

Earth Leakage Circuit Breakers

Metasol 30AF to 250AF Series

Frame Size (AF)		30	50		
Type		S-Type	N-Type	S-Type	H-Type
Type and pole	2-pole	EBS32c	EBN52c	-	-
	3-pole	EBS33c	EBN53c	EBS53c	EBH53c
	4-pole	EBS34c	-	EBS54c	EBH54c
Protective function		Overload, Short-circuit and ground fault	Overload, Short-circuit and ground fault		Overload, Short-circuit and ground fault
Rated current, I _n	(A)	(5, 10) ^{Note 2} , 15, 20, 30	15, 20, 30, 40, 50		15, 20, 30, 40, 50
Rated impulse withstand voltage, U _{imp}	(kV)	6	6		6
Instantaneous type	Rated residual current, I _{Δn}	(mA)	30, 100, 100/200/500 100/300/500	30, 100, 100/200/500, 100/300/500	30, 100, 100/200/500 100/300/500
	Residual current off-time at I _{Δn}	sec	≤ 0.1	≤ 0.1	≤ 0.1
	Rated operational voltage, U _e	AC (V)	220/460	220/460	
Time delay type	Rated residual current	1A	0.1/0.2/0.5/1	0.1/0.2/0.5/1	0.1/0.2/0.5/1
	Intentional time delay	1s	0/0.2/0.5/1	0/0.2/0.5/1	0/0.2/0.5/1
	Rated residual current	2A	0.1/0.4/1/2	0.1/0.4/1/2	0.1/0.4/1/2
	Intentional time delay	2s	0.5/1/1.5/2	0.5/1/1.5/2	0.5/1/1.5/2
Rated short-circuit breaking capacity (I _{cu}) kA (Sym), KSC8321, IEC 60947-2					
AC	460V	14 (10)	14	18	50
	415V	14 (10)	14	18	50
	220/250V	30 (25)	30	35	100
Service breaking capacity(%I _{cu}), I _{cs}		100	100	100	100
Category of use		A	A	A	A
Endurance	Mechanical	25,000	25,000	25,000	25,000
(Number of operations)	Electrical	10,000	10,000	10,000	10,000
Type of trip unit					
Overcurrent pick-up		Thermal-magnetic	Thermal-magnetic		
Earth leakage pick-up		Electronic	Electronic		
Accessories					
Electrical auxiliaries	Auxiliary switch	●	●	●	●
	Alarm switch	●	●	●	●
External accessories	Insulation barrier	●	●	●	●
	Terminal cover (Long)	●	●	●	●
	Terminal cover (Short)	●	●	●	●
	Rotary handle (Direct)	●	●	●	●
	Rotary handle (Direct, Key lock)	●	●	●	●
	Rotary handle (Extended)	●	●	●	●
	Rear terminal (Bar)				●
	Rear terminal (Round)	●	●	●	●
	Pad handle lock	●	●	●	●
	Dimensions (mm)	W×H×D (3P)	75×130×60	75×130×60	
Weight(kg)	2 pole	-	0.5	-	-
	3 pole	0.7	0.7	0.7	1
	4 pole	0.9	-	0.9	1.2

Note) 1. ● applicable or available

2. The short-circuit breaking capacities in () are applied to the rated current in (5, 10A)



60		100	125		250		
N-Type	S-Type	N-Type	S-Type	H-Type	N-Type	S-Type	H-Type
-	-	EBN102c	-	-	EBN202c	-	-
EBN63c	EBS63c	EBN103c	EBS103c	EBH103c	EBN203c	EBS203c	EBH203c
-	EBS64c	EBN104c	EBS104c	EBH104c	-	EBS204c	EBH204c
Overload, Short-circuit and ground fault		Overload, Short-circuit and ground fault	Overload, Short-circuit and ground fault		Overload, Short-circuit and ground fault		
60		60, 75, 100	15, 20, 30, 40, 50, 60, 75, 100, 125		100, 125, 150, 175, 200, 225, 250		
6		6	6		6		
30, 100, 100/200/500, 100/300/500		30, 100, 100/200/500, 100/300/500	30, 100, 100/200/500, 100/300/500		30, 100, 100/200/500, 100/300/500		
≤ 0.1		≤ 0.1	≤ 0.1		≤ 0.1		
220/460		220/460	220/460		220/460		
0.1/0.2/0.5/1		0.1/0.2/0.5/1	0.1/0.2/0.5/1		0.1/0.2/0.5/1		
0/0.2/0.5/1		0/0.2/0.5/1	0/0.2/0.5/1		0/0.2/0.5/1		
0.1/0.4/1/2		0.1/0.4/1/2	0.1/0.4/1/2		0.1/0.4/1/2		
0.5/1/1.5/2		0.5/1/1.5/2	0.5/1/1.5/2		0.5/1/1.5/2		
14	18	18	37	50	26	37	50
14	18	18	37	50	26	37	50
30	35	35	85	100	65	85	100
100	100	100	100	100	100	100	100
A	A	A	A	A	A	A	A
25,000	25,000	25,000	25,000	25,000	20,000	20,000	20,000
10,000	10,000	10,000	10,000	10,000	5,000	5,000	5,000
Thermal-magnetic		Thermal-magnetic	Thermal-magnetic		Thermal-magnetic		
Electronic		Electronic	Electronic		Electronic		
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
75×130×60		75×130×60	90×155×60		105×165×60		
-	-	0.5	-	-	1.1	-	-
0.7	0.7	0.7	1	1	1.2	1.2	1.2
-	0.9	0.9	1.2	1.2	-	1.5	1.5

Earth Leakage Circuit Breakers

Metasol 400AF to 1200AF Series

Frame Size (AF)			400			
Type			N-Type	S-Type	H-Type	L-Type
Type and pole	3-pole		EBN403c	EBS403c	EBH403c	EBL403c
	4-pole		EBN404c	EBS404c	EBH404c	EBL404c
Protective function			Overload, Short-circuit and ground fault			
Rated current, I _n	(A)		250, 300, 350, 400			
Rated impulse withstand voltage, U _{imp}	(kV)		6			
Rated operational voltage, U _e	AC (V)		220/460			
Instantaneous type	Rated residual current, I _{Δn}	(mA)	30, 100/200/500			
	Residual current off-time at I _{Δn}	sec	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1
Time delay type	Rated residual current	A	0.1/0.4/1/2	0.1/0.4/1/2	0.1/0.4/1/2	0.1/0.4/1/2
	Intentional time delay	s	0.5/1/1.5/2	0.5/1/1.5/2	0.5/1/1.5/2	0.5/1/1.5/2
Rated short-circuit breaking capacity (I _{cu}) kA (Sym), KSC8321, IEC 60947-2						
AC	415/460V		37	50	65	85
	220/250V		50	75	85	125
Service breaking capacity(%I _{cu}), I _{cs}			100	100	100	100
Category of use			A	A	A	A
Endurance (Number of operations)	Mechanical		4,000	4,000	4,000	4,000
	Electrical		1,000	1,000	1,000	1,000
Type of trip unit						
Overcurrent pick-up			Thermal-magnetic			
Earth leakage pick-up			Electronic			
Accessories						
Electrical auxiliaries	Auxiliary switch		●	●	●	●
	Alarm switch		●	●	●	●
	Shunt trip		●	●	●	●
	Undervoltage trip		●	●	●	●
External accessories	Insulation barrier		●	●	●	●
	Terminal cover (Long) - 2, 3 pole		●	●	●	●
	Terminal cover (Long) - 4 pole		●	●	●	●
	Rotary handle (Direct)		●	●	●	●
	Rotary handle (Extended)		●	●	●	●
	Mechanical interlock - 2, 3 pole		●	●	●	●
	Mechanical interlock - 4 pole		●	●	●	●
	Rear terminal - 2 pole		●	●	●	●
	Rear terminal - 3 pole		●	●	●	●
	Rear terminal - 4 pole		●	●	●	●
Dimensions (mm)	W×H×D (3P)		140×257×109			
Weight(kg)	3 pole		7	7	7	7
	4 pole		8.4	8.4	7	7

Note) 1. ● applicable or available



	800			1000	1200
	N-Type	S-Type	L-Type	S-Type	S-Type
	EBN803c	EBS803c	EBL803c	EBS1003b	EBS1203b
	-	-	-	-	-
	Overload, Short-circuit and ground fault			Overload, Short-circuit and Ground fault	
	500, 630, 700, 800			1000	1200
	6			-	-
	220/460			220/460	220/460
	30, 100/200/500			100/200/500	100/200/500
	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1
	0.1/0.4/1/2	0.1/0.4/1/2	0.1/0.4/1/2	-	-
	0.5/1/1.5/2	0.5/1/1.5/2	0.5/1/1.5/2	-	-
	37	65	85	85	85
	50	85	125	125	125
	100	100	75	-	-
	A	A	A	-	-
	2,500	2,500	2,500	2,500	2,500
	500	500	500	500	500
	Thermal-magnetic			Thermal-magnetic	
	Electronic			Electronic	
	•	•	•	•	•
	•	•	•	•	•
	•	•	•	-	-
	•	•	•	-	-
	•	•	•	-	-
	•	•	•	-	-
	•	•	•	-	-
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	•	•	•	-	-
	•	•	•	-	-
	•	•	•	-	-
	210×280×109			220×565×105	
	11.5	11.5	11.5	27.1	27.1
	-	-	-	-	-